The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A control unit for operating at least one valve, in particular a gas exchange valve (6) of an internal combustion engine in which

- the valve lifting movement of the at least one valve (6) is variable by superimposing at least two synchronously rotating cam profiles which act on a lift operating element (4), namely generating a first ~~came~~ cam profile (1) and a second cam profile (2), and being variable by phase shift between these two cam profiles (1, 2),
- both cam profiles (1, 2) have specially shaped areas which, when superimposed, generate at least one additional valve displacement (additional valve displacement curve ZV) are complementary to one of the two cam profiles (1, 2) over a full revolution of each of these cam profiles (1, 2), whereby at least this at least one additional valve displacement curve (ZV) is variable in shape and assignment to the main valve

displacement curve (HV) by phase shift between the two cam profiles (1, 2).

Claim 2 (Currently Amended): The control unit according to Claim 1, having a plurality of additional valve displacement curves (ZV), ~~characterized in that~~ wherein the additional valve displacement curves (ZV) are variable in their assignment to one another by phase shift.

Claim 3 (Currently Amended): The control unit according to Claim 1 ~~or 2~~, ~~characterized in that~~ wherein the main valve displacement curve (HV) is also variable simultaneously with the additional valve displacement curve (ZV).

Claim 4 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the main valve displacement curve (HV) is variable in opposition to the additional valve displacement curve (ZV), i.e., when there is a reduction in the main valve displacement there is an increase in the additional valve displacement and vice versa.

Claim 5 (Currently Amended): The control unit according to Claim 1 ~~or 2~~, ~~characterized in that~~ wherein the additional valve

displacement curve (ZV) can be varied while the main valve displacement curve (HV) remains unchanged.

Claim 6 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the additional valve displacement can be varied down to a zero displacement.

Claim 7 (Currently Amended): The control unit according to ~~any one of Claims 1 through 5~~ claim 1, ~~characterized in that~~ wherein the additional valve displacement can be varied to a minimal displacement which does not yield an effective valve opening cross section that is for gas flow.

Claim 8 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the additional valve displacement can be varied by phase displacement between the two cam profiles (1, 2) down to a minimal lift or a zero lift and it recurs with a further phase shift in an altered phase relation (Figure 7).

Claim 9 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~

wherein this unit is used at the intake and/or exhaust ends for internal exhaust recycling during engine operation.

Claim 10 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein this unit is used at the exhaust end for decompression (engine braking operation) during operation of the engine.

Claim 11 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein this unit is used for internal charging at the exhaust end during engine operation.

Claim 12 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein this unit is used at the exhaust end and/or at the intake end to implement a new combustion method during engine operation.

Claim 13 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~wherein multiple additional valve displacement curves (ZV) can be generated as a function of the phase shift between the two cam profiles (1, 2) and can be varied in the same direction or in different directions.

Claim 14 (Currently Amended): The control unit according to ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein by means of this control unit, it is possible to switch between engine operation, engine operation with internal exhaust gas recycling and engine braking operation.